## **Abstract:**

A Phase Locked Loop (PLL) that has a substantially constant gain over a wide frequency range. The frequency range over which the PLL operates is divided into a number of frequency sub-ranges. The circuit includes a mechanism for adjusting the loop gain profile as the PLL moves from one frequency sub-range to another. When the PLL switches to a new frequency sub-range, the loop gain profile is adjusted to a pre-established value. Changes of frequency within each sub-range are then accomplished with the loop gain varying within a pre-established range.

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